LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

- 1. (Currently Amended) A porous nano material polymer composite, wherein <u>a polymer penetrates into nano pores of nano silica to form a network structure.</u>
- 2. (Original) The porous nano material polymer composite according to claim 1, wherein the polymer is polymethyl methacrylate (PMMA).
- 3. (Currently Amended) A manufacturing method of manufacturing porous nano material polymer composite, the method comprising, impregnating monomer in nanometer order holes of a porous nano material in supercritical carbon dioxide fluid, and polymerizing the monomer.
- 4. (New) The porous nano material polymer composite of claim 1 or claim 2, wherein said nano silica is hydrophobic silica.
- 5. (New) The porous nano material polymer composite according to claim 4, wherein said hydrophobic silica is silica treated with hexamethyldisilazane.
- 6. (New) The method according to claim 3, wherein the polymer is polymethyl methacrylate (PMMA).
- 7. (New) The method according to claim 3 or claim 6, wherein said porous nano material is hydrophobic silica.
- 8. (New) The method according to claim 7, wherein said hydrophobic silica is nano silica treated with hexamethyldisilazane.